



TRANSMITTAL FORM (to be used for all correspondence after initial filing)		Application Number	10/691,529
		Filing Date	October 24, 2003
		First Named Inventor	Wei LIU et al.
		Group Art Unit	Not yet assigned
		Examiner Name	Not yet assigned
Total Number of Pages in This Submission	10	Attorney Docket Number	031896-011000

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Declaration and Power of Attorney <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Application Data Sheet <input type="checkbox"/> Request for Corrected Filing Receipt with Enclosures <input checked="" type="checkbox"/> A self-addressed prepaid postcard for acknowledging receipt <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): 64 References
Remarks		<input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees required or credit any overpayments to Deposit Account No. 19-2380 for the above identified docket number.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Raymond Van Dyke Nixon Peabody LLP 401 9 th Street, N.W. Suite 900 Washington D.C. 20004-2128
Signature	
Date	January 23, 2004

CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR 1.8(a)]	
I hereby certify that this correspondence is being:	
<input type="checkbox"/> deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450	
<input type="checkbox"/> transmitted by facsimile on the date shown below to the United States Patent and Trademark Office at (703) _____	
Date	Signature
	Typed or printed name



Application No. 10/691,529
Docket No. 031896-011000

UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:)	
Wei LIU et al.)	Examiner: Not yet assigned
Serial No. 10/691,529)	Group Art Unit: Not yet assigned
Filed: October 24, 2003)	
For: COMPOSITIONS, ORGANISMS AND)	
METHODOLOGIES EMPLOYING A)	
NOVEL HUMAN PROTEIN)	
PHOSPHATASE)	

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure as set forth in 37 C.F.R. §1.56, Applicants hereby submit the following information in conformance with 37 C.F.R. §§ 1.97 and 1.98. Pursuant to 37 C.F.R. § 1.98, a copy of each of the documents cited is enclosed.

The documents are being submitted within three (3) months of the filing of this application or entry into the national stage of this application, or before the first Office Action on the merits, whichever is later, therefore no fee or certification is required under 37 C.F.R. § 1.97(b).


It is requested that the accompanying PTO-1449 be considered and made of record in the above-identified application. To assist the Examiner, the documents are listed on the attached form PTO-1449. It is respectfully requested that an Examiner initialed copy of this form be returned to the undersigned.

The Commissioner is hereby authorized to charge any fees connected with this filing which may be required now, or credit any overpayment to Deposit Account No. 19-2380. (031896-011000)

Respectfully submitted,

NIXON PEABODY LLP

By:


Raymond Van Dyke
Registration No. 34,746

NIXON PEABODY LLP
Suite 900
401 9th Street, N.W.
Washington, DC 20004-2128

Telephone: (202) 585-8000



INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet	1	of	7
-------	---	----	---

Complete if Known

Application Number	10/691,529
Filing Date	October 24, 2003
First Named Inventor	Wei LIU
Art Unit	Not yet assigned
Examiner Name	Not yet assigned
Attorney Docket Number	031896-011000

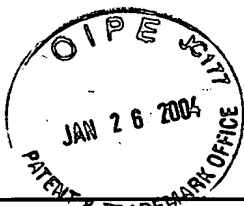
U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]Examiner
SignatureDate
Considered

¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at 222.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.



Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Complete if Known

Application Number	10/691,529
Filing Date	October 24, 2003
First Named Inventor	Wei LIU
Group Art Unit	Not yet assigned
Examiner Name	Not yet assigned
Attorney Docket Number	031896-011000

Sheet	3	of	7
-------	---	----	---

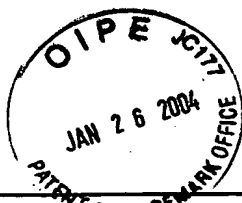
OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		ALTSCHUL ET AL.; "GAPPED BLAST AND PSI-BLAST: A NEW GENERATION OF PROTEIN DATABASE SEARCH PROGRAMS" , NUCLEIC ACIDS RESEARCH, 1997, PP. 3389-3402, VOL. 25, NO. 17, OXFORD UNIVERSITY PRESS	
		BERGER P. ET AL.; "LOSS OF PHOSPHATASE ACTIVITY IN MYOTUBULARIN-RELATED PROTEIN 2 IS ASSOCIATED WITH CHARCOT-MARIE TOOTH DISEASE TYPE 4B1" , HUMAN MOLECULAR GENETICS, 2002, PP. 1569-1579, VOL. 11, NO. 13, OXFORD UNIVERSITY PRESS	
		BOE R. ET AL.; "THE PROTEIN PHOSPHATASE INHIBITOR OKADAIC ACID INDUCES MORPHOLOGICAL CHANGES TYPICAL OF APOPTOSIS IN MAMMALIAN CELLS" , EXPERIMENTAL CELL RESEARCH 195, 1991, PP. 237-246, ACADEMIC PRESS, INC.	
		BOTTINI N. ET AL.; "LOW-MOLECULAR-WEIGHT PROTEIN TYROSINE PHOSPHATASE AND HUMAN DISEASE: IN SEARCH OF BIOCHEMICAL MECHANISMS" , ARCHIVUM IMMUNOLOGIAE ET THERAPIAE EXPERIMENTALIS, 2002 pp. 95-104, vol. 50,	
		BROWN-SHIMER, ET AL.; "EFFECT OF PROTEIN TYROSINE PHOSPHATASE 1b EXPRESSION ON TRANSFORMATION BY THE HUMAN neu ONCOGENE" , CANCER RESEARCH, 52, 1992, PP. 478-48	
		CHEN ET AL.; "THE MYOTONIC DYSTROPHY KINASE-RELATED Cdc42-BINDING KINASE IS INVOLVED IN THE REGULATION OF NEURITE OUTGROWTH IN PC12 CELLS" , THE JOURNAL OF BIOLOGICAL CHEMISTRY 1999, PP. 19901-19905, VOL. 274, NO. 28, THE AMERICAN SOCIETY FOR BIOCHEMISTRY AND MOLECULAR BIOLOGY, INC.	
		DELAGRAVE ET AL.; "RECURSIVE ENSEMBLE MUTAGENESIS" , PROTEIN ENGINEERING, 1993, PP. 327-331, VOL. 6 NO. 3, OXFORD UNIVERSITY PRESS	
		DONG ET AL.; "Cdc42 ANTAGONIZES INDUCTIVE ACTION OF cAMP ON CELL SHAPE, VIA EFFECTS OF THE MYOTONIC DYSTROPHY KINASE-RELATED Cdc42-BINDING KINASE (MRCK) ON MYOSIN LIGHT CHAIN PHOSPHORYLATION" , EUROPEAN JOURNAL OF CELL BIOLOGY APRIL 2002, PP. 231-242, VOL. 81	

Examiner
SignatureDate
Considered

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1

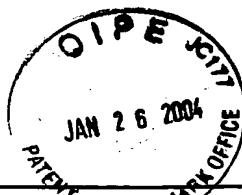


Substitute for form 1449B/P TO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known			
				Application Number		10/691,529	
				Filing Date		October 24, 2003	
				First Named Inventor		Wei LIU	
				Group Art Unit		Not yet assigned	
Examiner Name		Not yet assigned					
Sheet	4	of	7	Attorney Docket Number		031896-011000	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		ENGELMAN ET AL.; "IDENTIFYING NONPOLAR TRANSBILAYER HELICES IN AMINO ACID SEQUENCES OF MEMBRANE PROTEINS" , ANN. REV. BIOPHYS. CHEM. 1986, PP. 321-353, VOL. 15, ANNUAL REVIEWS INC.	
		FLOREA ET AL.; "A COMPUTER PROGRAM FOR ALIGNING A cDNA SEQUENCE WITH A GENOMIC DNA SEQUENCE" , GENOME RESEARCH 1998, PP. 967-974, VOL. 8, COLD SPRING HARBOR LABORATORY PRESS	
		GOSSEN ET AL.; "TRANSCRIPTIONAL ACTIVATION BY TETRACYCLINES IN MAMMALIAN CELLS" , SCIENCE JUNE 23, 1995, PP. 1766-1769, VOL. 268	
		GUATELLI ET AL.; "ISOTHERMAL, IN VITRO AMPLIFICATION OF NUCLEIC ACIDS BY A MULTIENZYME REACTION MODELED AFTER RETROVIRAL REPLICATION" , PROC. NATL. ACAD. SCI. USA, MARCH 1990, PP.1874-1878, VOL. 87	
		HASELOFF ET AL.; "SIMPLE RNA ENZYMES WITH NEW AND HIGHLY SPECIFIC ENDORIBONUCLEASE ACTIVITIES" , NATURE, AUGUST 18, 1988, PP. 585-591, VOL. 334	
		HYRUP ET AL.; "PEPTIDE NUCLEIC ACIDS (PNA): SYNTHESIS, PROPERTIES AND POTENTIAL APPLICATIONS" , BIOORGANIC & MEDICINAL CHEMISTRY, 1996, PP. 5-23, VOL. 4, NO. 1, ELSEVIER SCIENCE LTD., GREAT BRITAIN	
		ISHIDA ET AL.; "TREATMENT OF MYELOID LEUKEMIC CELLS WITH THE PHOSPHATASE INHIBITOR OKADAIC ACID INDUCES CELL CYCLE ARREST AT EITHER G1/S OR G2/M DEPENDING ON DOSE" , JOURNAL OF CELLULAR PHYSIOLOGY, 1992, PP. 484-492	
		JANSSENS ET AL.; "PROTEIN PHOSPHATASE 2A: A HIGHLY REGULATED FAMILY OF SERINE/THREONINE PHOSPHATASES IMPLICATED IN CELL GROWTH AND SIGNALING" , BIOCHEM. J., 353, 2001, PP 417-43	
		KEDRA ET AL.; "THE GERMINAL CENTER KINASE GENE AND A NOVEL CDC25-LIKE GENE ARE LOCATED IN THE VICINITY OF THE PYGM GENE ON 11q13" , HUM. GENET., 1997, PP. 611-619, VOL. 100	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known			
				Application Number		10/691,529	
				Filing Date		October 24, 2003	
				First Named Inventor		Wei LIU	
				Group Art Unit		Not yet assigned	
				Examiner Name		Not yet assigned	
Sheet	5	of	7	Attorney Docket Number		031896-011000	

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		KEEN ET AL.; <i>RAPID DETECTION OF SINGLE BASE MISMATCHES AS HETERODUPLEXES ON HYDROLINK GELS</i> , TRENDS IN GENETICS, 1997, P. 5, VOL. 7	
		KWOH ET AL.; <i>“TRANSCRIPTION-BASED AMPLIFICATION SYSTEM AND DETECTION OF AMPLIFIED HUMAN IMMUNODEFICIENCY VIRUS TYPE 1 WITH A BEAD-BASED SANDWICH HYBRIDIZATION FORMAT”</i> , PROC. NATL. ACAD. SCI. USA, FEBRUARY 1989, PP. 1173-1177, VOL. 86	
		LAM ET AL.; <i>“CHARACTERIZATION OF A MONOCLONAL ANTIBODY PANEL SHOWS THAT THE MYOTONIC DYSTROPHY PROTEIN KINASE, DMPK, IS EXPRESSED ALMOST EXCLUSIVELY IN MUSCLE AND HEART”</i> , HUMAN MOLECULAR GENETICS, 2000, PP. 2167-2173, VOL. 9, NO. 4, OXFORD UNIVERSITY PRESS	
		LEE ET AL.; <i>“EXPRESSION OF SMALL INTERFERING RNAs TARGETED AGAINST HIV-1 rev TRANSCRIPTS IN HUMAN CELLS”</i> , NATURE BIOTECHNOLOGY, MAY 2002, PP. 500505, VOL. 19	
		LEUNG ET AL.; <i>“MYOTONIC DYSTROPHY KINASE-RELATED Cdc42-BINDING KINASE ACTS AS A Cdc42 EFFECTOR IN PROMOTING CYTOSKELETAL REORGANIZATION”</i> , MOLECULAR AND CELLULAR BIOLOGY, JANUARY 1998, PP. 130-140, VOL. 18, NO. 1, AMERICAN SOCIETY FOR MICROBIOLOGY	
		LIZARDI ET AL.; <i>“EXPONENTIAL AMPLIFICATION OF RECOMBINANT-RNA HYBRIDIZATION PROBES”</i> , BIOTECHNOLOGY, OCTOBER 1988, PP. 1197-1202, VOL. 6	
		MARATEA ET AL.; <i>“DELETION AND FUSION ANALYSIS OF THE PHAGE Øx174 LYSIS GENE E”</i> , GENE, 1985, PP. 39-46, VOL. 40, ELSEVIER SCIENCE PUBLISHERS	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/691,529
				Filing Date	October 24, 2003
				First Named Inventor	Wei LIU
				Group Art Unit	Not yet assigned
				Examiner Name	Not yet assigned
Sheet	6	of	7	Attorney Docket Number	031896-011000

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		MEYERS ET AL.; <i>"OPTIMAL ALIGNMENTS IN LINEAR SPACE"</i> , CABIOS, 1988, PP. 11-17, VOL. 4, NO. 1, PRESS LIMITED, OXFORD ENGLAND	
		MURPHY ET AL.; <i>"GENETIC CONSTRUCTION, EXPRESSION, AND MELANOMA-SELECTIVE CYTOTOXICITY OF A DIPHTHERIA TOXIN-RELATED α-MELANOMA-STIMULATING HORMONE FUSION PROTEIN"</i> , PROC. NATL. ACA. SCI. USA, NOVEMBER 1986, PP. 8258-8262, VO. 83	
		NEEDLEMAN ET AL.; <i>"A GENERAL METHOD APPLICABLE TO THE SEARCH FOR SIMILARITIES IN THE AMINO ACID SEQUENCE OF TOW PROTEINS"</i> , J. MOL. BIO., 1970, PP. 443-453, VOL. 48	
		NO ET AL.; <i>"ECDYSONE-INDUCIBLE GENE EXPRESSION IN MAMMALIAN CELLS AND TRANSGENIC MICE"</i> , PROC. NATL. ACAD. SCI. USA, APRIL 1996, PP. 3346-3351, VOL. 93	
		NOMURA ET AL.; <i>"ENHANCEMENT BY CYCLOSPORIN A OF TAXOL-INDUCED APOPTOSIS OF HUMAN URINARY BLADDER CANCER CELLS"</i> , UROL RES, 2002, PP. 102-111, VOL. 30	
		O'GORMAN ET AL.; <i>"RECOMBINASE-MEDIATED GENE ACTIVATION AND SITE-SPECIFIC INTEGRATION IN MAMMALIAN CELLS"</i> , SCIENCE, MARCH 1991, PP. 1351-1355	
		ROSENBAUM ET AL.; <i>"TEMPERATURE-GRADIENT GEL ELECTROPHORESIS"</i> , BIOPHYSICAL CHEMISTRY, 1987, PP. 235-246, VOL. 26	
		SAIKI ET AL.; <i>"GENETIC ANALYSIS OF AMPLIFIED DNA WITH IMMOBILIZED SEQUENCE-SPECIFIC OLIGONUCLEOTIDE PROBES"</i> , PROC. NATL. ACAD. SCI. USA, AUGUST 1989, PP. 6230-6234, VOL. 86	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known	
				Application Number	
				10/691,529	
				Filing Date	
				October 24, 2003	
				First Named Inventor	
Wei LIU et al.					
Group Art Unit					
Not yet assigned					
Examiner Name					
Not yet assigned					
Attorney Docket Number					
031896-011000					
Sheet	7	of	7		

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²	
		STRAUB ET AL.; "GENOME-WIDE SCANS OF THREE INDEPENDENT SETS OF 90 IRISH MULTIPLEX SCHIZOPHRENIA FAMILIES AND FOLLOW-UP OF SELECTED REGIONS IN ALL FAMILIES PROVIDES EVIDENCE FOR MULTIPLE SUSCEPTIBILITY GENES" , MOL. PSYCHIATRY, 2002, PP. 542-559, VOL. 7, NO. 6		
		SUI ET AL.; "A DNA VECTOR-BASED RNAi TECHNOLOGY TO SUPPRESS GENE EXPRESSION IN MAMMALIAN CELLS" , PROC. NATL. ACAD. SCI., APRIL 16, 2002, PP. 5515-5520, VOL. 99, NO. 8		
		TAN ET AL.; "PHOSPHORYLATION OF A NOVEL MYOSIN BINDING SUBUNIT OF PROTEIN PHOSPHATASE 1 REVEALS A CONSERVED MECHANISM IN THE REGULATION OF ACTIN CYTOSKELETON" , THE JOURNAL OF BIOLOGICAL CHEMISTRY, 2001, PP. 21209-21216, VOL. 276, NO. 24		
		TAN ET AL.; "INTERMOLECULAR AND INTRAMOLECULAR INTERACTIONS REGULATE CATALYTIC ACTIVITY OF MYOTONIC DYSTROPHY KINASE-RELATED Cdc42-BINDING KINASE α" , MOLECULAR AND CELLULAR BIOLOGY, APRIL 2001, PP. 2767-2778, VOL. 21, NO. 8		
		WANG ET AL.; "LIGAND-INDUCIBLE AND LIVER-SPECIFIC TARGET GENE EXPRESSION IN TRANSGENIC MICE" , NATURE BIOTECHNOLOGY, MARCH 1997, PP. 239-243, VOL. 15		
		WARY ET AL.; "A HOMOZYGOUS DELETION WITHIN THE CARBONIC ANHYDRASE-LIKE DOMAIN OF THE Ptpg GENE IN MURINE L-CELLS" , CANCER RESEARCH, APRIL 1, 1993, PP. 478-482, VOL. 53		
		WILMUT ET AL.; "VIABLE OFFSPRING DERIVED FROM FETAL AND ADULT MAMMALIAN CELLS" , LETTERS TO NATURE, FEBRUARY 1997, PP. 810-813, VOL.385		
		YE ET AL.; "REGULATED DELIVERY OF THERAPEUTIC PROTEINS AFTER IN VIVO SOMATIC CELL GENE TRANSFER" , SCIENCE, JANUARY 1999, PP. 88-91, VOL. 283		
		ZHAO ET AL.; "REVERSIBLE MODIFICATION OF TISSUE-TYPE PLASMINOGEN ACTIVATOR BY METHYPHOSPHONATE ESTERS" , BIOORGANIC & MEDICINAL CHEMISTRY, 1996, PP. 523-529, VOL. 4		
		ZY; "PROTEIN TYROSINE PHOSPHATASES: STRUCTURE AND FUNCTION, SUBSTRATE SPECIFICITY, AND INHIBITOR DEVELOPMEN" , ANNU REV PHARMACOL TOXICOL, 2002, PP. 209-34, VOL. 42		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.